

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) An isolated alkaline protease consisting of an amino acid sequence of SEQ ID NO: 1, wherein one or more amino acid residues selected from those located at (a) position 15, (b) position 16, (c) position 166, (d) position 167, (e) position 187, (f) position 346, and (g) position 405 of the amino acid sequence of SEQ ID NO: 1 are replaced with the following amino acid residues, respectively:

- (a) histidine,
- (b) threonine or glutamine,
- (c) glycine,
- (d) valine,
- (e) serine,
- (f) arginine, and
- (g) aspartic acid,

wherein said alkaline protease has alkaline protease activity.

2. (Currently Amended) An isolated alkaline protease consisting of an amino acid sequence that is at least 95% homologous to the amino acid sequence of SEQ ID NO: 1, wherein one or more amino acid residues selected from those located at (a) position 15, (b) position 16, (c) position 166, (d) position 167, (e) position 187, (f) position 346, and (g) position 405 of the amino acid sequence of ~~SEQ No: 1~~ SEQ ID NO: 1, or at positions corresponding to these positions, are the following amino acid residues or are replaced with the following amino acid residues, respectively:

- (a) histidine,
- (b) threonine or glutamine,

- (c) glycine,
- (d) valine,
- (e) serine,
- (f) arginine, and
- (g) aspartic acid,

wherein said alkaline protease has alkaline protease activity.

3. – 12. (Canceled)

13. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1 is replaced with histidine.

14. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (b) position 16 of SEQ ID NO: 1 is replaced with threonine.

15. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (c) position 166 of SEQ ID NO: 1 is replaced with glycine.

16. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (d) position 167 of SEQ ID NO: 1 is replaced with valine.

17. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (e) position 187 of SEQ ID NO: 1 is replaced with serine.

18. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (f) position 346 of SEQ ID NO: 1 is replaced with arginine.

19. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (g) position 405 of SEQ ID NO: 1 is replaced with aspartic acid.

20. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1 is replaced with histidine, and (b) position 16 of SEQ ID NO: 1 is replaced with threonine.

21. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1 is replaced with histidine, and (b) position 16 of SEQ ID NO: 1 is replaced with glutamine.

22. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (f) position 346 of SEQ ID NO: 1 is replaced with arginine, and (g) position 405 of SEQ ID NO: 1 is replaced with aspartic acid.

23. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (c) position 166 of SEQ ID NO: 1 is replaced with glycine, and (d) position 167 of SEQ ID NO: 1 is replaced with valine.

24. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1 is replaced with histidine, (b)

position 16 of SEQ ID NO: 1 is replaced with glutamine, (f) position 346 of SEQ ID NO: 1 is replaced with arginine, and (g) position 405 of SEQ ID NO: 1 is replaced with aspartic acid.

25. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1 is replaced with histidine, (b) position 16 of SEQ ID NO: 1 is replaced with glutamine, (e) position 187 of SEQ ID NO: 1 is replaced with serine, (f) position 346 of SEQ ID NO: 1 is replaced with arginine, and (g) position 405 of SEQ ID NO: 1 is replaced with aspartic acid.

26. (New) The alkaline protease of Claim 1, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1 is replaced with histidine, (b) position 16 of SEQ ID NO: 1 is replaced with glutamine, (c) position 166 of SEQ ID NO: 1 is replaced with glycine, and (d) position 167 of SEQ ID NO: 1 is replaced with valine, (e) position 187 of SEQ ID NO: 1 is replaced with serine, (f) position 346 of SEQ ID NO: 1 is replaced with arginine, and (g) position 405 of SEQ ID NO: 1 is replaced with aspartic acid.

27. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with histidine.

28. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (b) position 16 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with threonine.

29. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (c) position 166 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with glycine.

30. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (d) position 167 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with valine.

31. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (e) position 187 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with serine.

32. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (f) position 346 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with arginine.

33. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (g) position 405 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with aspartic acid.

34. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with histidine, and (b) position 16 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with threonine.

35. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with histidine, and (b) position 16 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with glutamine.

36. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (f) position 346 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with arginine, and (g) position 405 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with aspartic acid.

37. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (c) position 166 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with glycine, and (d) position 167 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with valine.

38. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with histidine, (b) position 16 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with glutamine, (f) position 346 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with arginine, and (g) position 405 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with aspartic acid.

39. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with histidine, (b) position 16 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with glutamine, (c) position 187 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with serine, (f) position 346 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with arginine, and (g) position 405 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with aspartic acid.

40. (New) The alkaline protease of Claim 2, wherein said protease has the following amino acid substitutions: (a) position 15 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with histidine, (b) position 16 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with glutamine, (c) position 166 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with glycine, and (d) position 167 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with valine, (e) position 187 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with serine, (f) position 346 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with arginine, and (g) position 405 of SEQ ID NO: 1, or at a position corresponding thereto, is replaced with aspartic acid.

SUPPORT FOR THE AMENDMENTS

Claims 3-12 have been canceled.

Claim 2 has been amended.

Claims 13-40 have been added.

The amendment to Claim 2 is supported by the corresponding claim as previously presented. New Claims 13-40 are supported by the specification at page 11, line 7 to page 13, line 8, page 25, lines 8-24, and Table 2.

No new matter has been added by the present amendments.